

REMARKS

Claim 43 has been canceled without prejudice or disclaimer. Claim 42 has been amended to recite that the alteration corresponds to S356. Claims 44 and 49 have been amended consistent with the amendment to base claim 42. Claim 51 has been amended to further clarify that all of the substitutions recited are included. Claim 54 has been amended to recite that the alteration corresponds to E376K. Claims 60 and 61 have been amended consistent with the amendment to base claim 54. Claim 59 has been amended to recite that the DNA encodes an alpha-amylase having an alteration of 156Y+181T+190F+209V+264S. Support for this amendment is found in the specification, for example, at page 14, line 36 to page 15, line 4.

It is respectfully submitted that the present amendment presents no new issues or new matter and places this case in condition for allowance. Reconsideration of the application in view of the above amendments and the following remarks is requested.

I. The Rejection of Claims 42 and 44-48 under 35 U.S.C. 102

Claims 42 and 44-48 are rejected under 35 U.S.C. 102(b) as anticipated by U.S. Pat. No. 5,731,280. The Examiner states that U.S. Pat. No. 5,731,280 discloses an alteration at position Y358.

Applicants submit that the present amendment renders the rejection moot. For the foregoing reasons, Applicants submit that the claims overcome this rejection under 35 U.S.C. 102(b). Applicants respectfully request reconsideration and withdrawal of the rejection.

II. The Rejection of Claims 54-58, 60 and 61 under 35 U.S.C. 103(a)

Claims 54-58, 60 and 61 are rejected under 35 U.S.C. 103, as obvious over WO 96/23874. The Examiner states that WO 96/23874 discloses, among other things, alterations at positions S417 and A420. The Examiner states that although WO 96/23874 does not disclose the specific substitutions of S417T, and A420Q,R, that WO 97/23874 provides an artisan the motivation to select these amino acid substitutions and a reasonable expectation of success.

Applicants submit that the present amendment renders the rejection moot. For the foregoing reasons, Applicants submit that the claims overcome this rejection under 35 U.S.C. 103. Applicants respectfully request reconsideration and withdrawal of the rejection.

III. The Rejection of Claims 51 and 52 under 35 U.S.C. 103(a)

Claims 51 and 52 are rejected under 35 U.S.C. 103(a) as obvious over U.S. Pat. No. 5,731,280 and WO 97/41213. U.S. Pat. No. 5,731,280 is applied as discussed in the 102(b)

rejection in Section I, above. The Examiner contends that WO 97/41212 discloses an alpha-amylase variant having the substitutions 156Y+181T+190F+209V+264S.

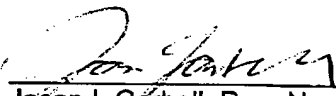
Applicants submit that the present amendment renders the rejection moot. For the foregoing reasons, Applicants submit that the claims overcome this rejection under 35 U.S.C. 103. Applicants respectfully request reconsideration and withdrawal of the rejection.

IV. Conclusion

In view of the above, it is respectfully submitted that all claims are in condition for allowance. Early action to that end is respectfully requested. The Examiner is hereby invited to contact the undersigned by telephone if there are any questions concerning this amendment or application.

Respectfully submitted,

Date: January 21, 2003



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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of: Svendsen et al.

Confirmation No. 4161

Application No.: 09/441,313

Group Art Unit: 1652

Filed: November 16, 1999

Examiner: Hutson, R

For: Alpha-amylase variants

MARKED-UP VERSION UNDER 37 C.F.R. 1.21:

Assistant Commissioner for Patents
Washington, DC 20231

Sir:

Please enter the following claim amendments:

42. (Amended.) A DNA sequence encoding an alpha-amylase, said alpha-amylase having an amino acid sequence which is at least 60% identical to SEQ ID NO:4 and having an alteration at a position corresponding to [either or both] S356 [and Y358], using SEQ ID NO:4 for numbering.

44. (Amended.) The DNA sequence of claim 42, wherein the DNA sequence encodes an alpha-amylase that that comprises an alteration at a position corresponding to [is at] Y358, using SEQ ID NO:4 for numbering.

49. (Amended.) The DNA sequence of claim [43] 42, wherein the alteration is S356A.

51.(Amended.) The DNA sequence of claim 42, [further comprising one or more of the following alterations:] wherein the DNA sequences encodes an alpha-amylase that comprises the following substitutions: 156Y+181T+190F+209V+264S.

54. (Amended.) A DNA sequence encoding an alpha-amylase, said alpha-amylase having an amino acid sequence which is at least 60% identical to SEQ ID NO:4 and an alteration of [one or more of] E376K[, S417T, and A420Q,R], using SEQ ID NO:4 for numbering.

59. (Amended.) The DNA sequence of claim 54, wherein the DNA sequences encodes an alpha-amylase that comprises the alteration [is E376K] 156Y+181T+190F+209V+264S.

60. (Amended.) The DNA sequence of claim 54, wherein the DNA sequence s encodes an alpha-amylase that comprises the alteration [is] S417T.

61. (Amended.) The DNA sequence of claim 54, wherein the DNA sequences encodes an alpha-amylase that comprises the alteration [is] A420Q,R